



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/571,874

04/11/2006

Johannes Jung

3602-PAT

6886

30084

7590

10/08/2008

DONN K. HARMS  
PATENT & TRADEMARK LAW CENTER  
SUITE 100  
12702 VIA CORTINA  
DEL MAR, CA 92014

EXAMINER

GANESAN, SUBA

ART UNIT

PAPER NUMBER

3774

MAIL DATE

DELIVERY MODE

10/08/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/571,874	<b>Applicant(s)</b> JUNG, JOHANNES	
	<b>Examiner</b> SUBA GANESAN	<b>Art Unit</b> 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/27/2008 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-5, and 9-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-2, 4-5, 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Pat. No.: 6,270,524) in view of Chouinard et al. (6,585,758).

3.

4. Kim discloses a stent with a tubular wall comprised of annular segments 14 connected to one another by means of connecting segments 22 comprising elements 20 with an elastic structure (examiner considers elements 20 to have an elastic

Art Unit: 3774

structure because they are designed to compress and expand). An annular segment 14 in a terminal region of the stent is directly connected (without connecting segments 22) to an adjacent annular segment (see element 28, fig. 3A). The stent elements are v-shaped.

5. Kim fails to show a curved anchoring element that curves radially outwardly and bridges at least one wall element with a radiopaque region on the curved tip. Chouinard teaches the use of a curved anchoring element 212 (fig. 7) with a radiopaque tip (col. 8 lines 35-44) that f bridges at least one wall element (see fig. 7) resulting in a stent end that anchors at a target location. The anchoring element bridges at least two wall elements. The anchor element is v-shaped. The stent has as least three anchoring elements. The stent further has radiopaque regions on the opposite tube ends (col. 8 lines 35-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the flexible stent as disclosed by Kim with the curved anchoring element and radiopaque tip as taught by Chouinard to increase the anchoring of the stent ends and further provide an indication of stent expansion via the radiopaque markers.

6. With respect to claims 10-12, it is noted that the rejection is based upon a combination of the structure of Kim with Chouinard. Kim teaches annular segments connected together with connecting segments, and Chouinard teaches annular segments connected directly to one another. Although the combination of references lacks explicit teaching of as stent having a combination of directly connected annular segments and annular segments connected via connecting segments, Examiner

Art Unit: 3774

considers such a combination within the level of ordinary skill in the art at the time the invention was made. One would have been motivated to have provided such a combination by a need to modulate the flexibility of the stent along the longitudinal axis in order to accommodate local vascular anatomy including curvature and width.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the stent of Kim with segments directly connected to one another as taught by Chouinard for the purpose of providing controlled flexibility in specific regions of the stent.

7. Claim **3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Pat. No.: 6,270,524) in view of Chouinard et al. (6,585,758) as applied above, and further in view of Fischell et al. (Pub. No.: US 20020058988).

8. Kim in view of Chouinard is explained supra. However, the combination lacks an anchoring element with larger thickness than the wall elements. Fischell teaches larger end thicknesses (figs. 8 and 10) in an expandable stent for enhanced visibility (para 17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the flexible stent of Kim and Chouinard with anchoring elements with greater thicknesses for the purpose of increasing the strength of the anchoring elements.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUBA GANESAN whose telephone number is (571)272-3243. The examiner can normally be reached on M-F 7-4.

Art Unit: 3774

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. G./

Examiner, Art Unit 3774

/William H. Matthews/

Primary Examiner, Art Unit 3774